Analysis and Tools for Decision-making:
Collaborating and Coordinating with Regions and States

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OEI Building Analytical Capacity Agency Wide

- Our **vision** is to be a catalyst for strategic investments in environmental improvement

- Our **mission** is to provide tools, support and multi-media integrated analysis, at multiple scales, for enhancing environmental decision making at EPA

- Our **goal** is to improve the effective use of limited resources in addressing environmental concerns by enhancing analytical capability and capacity in the Agency

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What did we learn?

- **Making data available at the desk top for decision makers is increasingly important**

- **Regions would like assistance with tools and analyses, as long as it is collaborative**

- **Multimedia issues are still not being dealt with in any systematic way**

- **Program Offices would like joint ventures**

OEI Role

- **Providing tools, support, and multi-media integrated analysis, at multiple scales, for enhancing environmental decision making at EPA**

- **Emphasis is on collaboration**

Region/State Needs

- Easily updated and accessible data for analysis
- Need for complete and comparable datasets
- Need for appropriate tools/models
- Answers to questions:
  - What is the effect of increasing development/land use changes on flooding/water resources/animals?
  - Where/how do TMDLs affect us?

Objectives

- Coordinate community building between the Regions with existing groups (e.g., Forum, REPN) to help assess resources/needs
- Collaborate with Regions and states
  - to develop/facilitate analytical models/tools and access to data
  - to develop analysis and tools to aid in decision-making based on user needs
- To reduce the resources needed for the Regions and States to gather data and perform analyses
- To provide trend and forecasting information for indicators to determine the national and regional status of the environment

Goals

- Collaborate with EPA Regions to develop environmental indicators for their respective areas.

- Provide more dynamic, accessible, and affordable analytical/data access tools, which can help identify data gaps.

- Provide useful information for national and regional reporting on the condition of the environment.

Existing resources

- Comparable aquatic dataset for all states residing in Region V (compiled from various federal and state agencies)
    - Water quality
        - Nutrients
        - Dissolved oxygen
        - Suspended solids, turbidity
    - Biological variables
        - Periphyton biomass
        - Taxonomic composition of periphyton, macroinvertebrate, and fish communities
    - Habitat variables
    - Look-up tables to ensure data comparability
    - Landscape variables
- Region V RoE
- Midwest Spatial Decision Support System Partnership
    - Long-Term Hydrologic Impact Assessment (L-THIA)
    - Aquatic and Terrestrial Resources Inventory (ATRI)
- Regional Vulnerability Assessment Program (ReVA)

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Proposed Products and Services

- Coordinate existing Regional groups to pool resources

- Create new models/tools/access to data

- Develop web services and portals for customer access to resources

  – Integrate into Region V website (analytical tool)

- Analyze results from models/develop multimedia analysis

Benefits

- Analyses performed with this pilot will help determine the vulnerable ecological areas in Region V and ultimately help prioritize regional environmental needs and utilization of resources.

- Coordinating resources will help reduce financial and FTE constraints and prevent from duplicating similar efforts

Potential additional partners

- ORD – CREM (Council on Regulatory Environmental Models)
  - Supporting implementation of the TMDL program in the States through satellite "Centers of Excellence" in EPA Regions
- OW – OWOW Smart Growth program
  - OW Smart Growth Website/Land Use and Water Decision Support Tools
  - Smart Growth and Water Regional Roundtables & Training

Next steps

- Upon completion of this project in Region 5, a template for this tool will have been created to reproduce this effort in other Regions.
  - Region 3 is currently reproducing the Region V analytical tool and beginning the planning of this pilot project
- Other analytical models/tools will also be developed to interface with the dataset based upon user feedback needs.